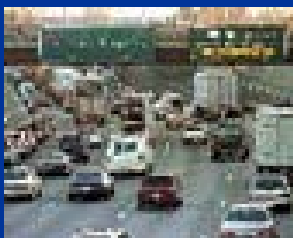




# PHASE II STORMWATER



**Bill Moore**  
**Department of Ecology**

**AWC/WSAC**  
**NPDES Phase II Workshops**



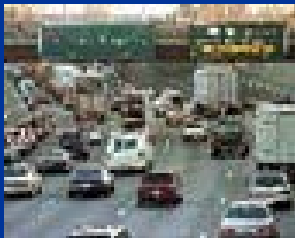
# Phase II Stormwater



- Who is in and who is out?
- What do the Phase II rules require?
- What is next?



# Who's In and Who's Out



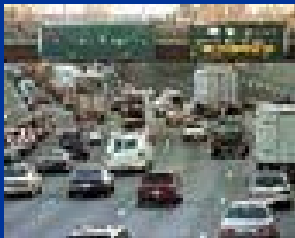
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What do the Federal rules say about who's in and who's out?

- Who must be regulated
- Who must be evaluated
- Who may be waived
- Maps and lists



# Who's In and Who's Out



## Who must be regulated?

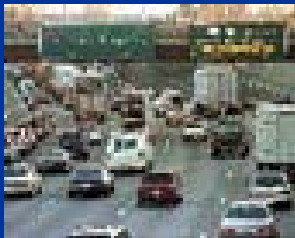
- All Municipal Separate Storm Sewer Systems (**MS4s**) located within **census defined urbanized areas** and which discharge to surface waters

# What is an MS4?

## Municipal Separate Storm Sewer System or MS4:

A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) which is:

- Owned by a State, City, County, or other public entity; and
- Designed or used for collecting or conveying stormwater.

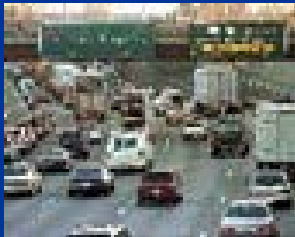


# Census Defined Urbanized Area

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A central place (or places) and the adjacent densely settled surrounding territory that together have a minimum residential population of 50,000 people and a minimum average density of 1,000 people per square mile.



# Census Defined Urbanized Areas in Washington

- Bellingham
- Bremerton
- Clarkston
- Longview/Kelso
- Marysville
- Mount Vernon
- Olympia/Lacey
- Seattle
- Spokane
- Tri-Cities
- Vancouver
- Wenatchee
- Yakima



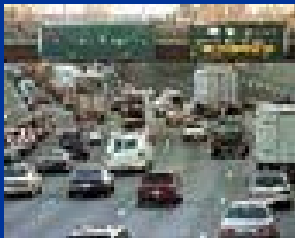
# Who's In and Who's Out



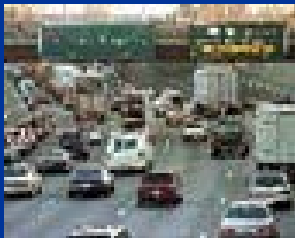
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## Who must be evaluated?

All cities outside of census defined urbanized areas with populations greater than 10,000



40 CFR Part 123.35(b)



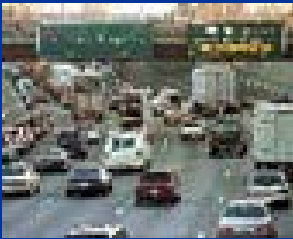
# Who Must be Evaluated?

---

- Aberdeen
- Anacortes
- Centralia
- Oak Harbor
- Port Angeles
- Ellensburg
- Moses Lake
- Pullman
- Sunnyside
- Walla Walla



# Who's In and Who's Out



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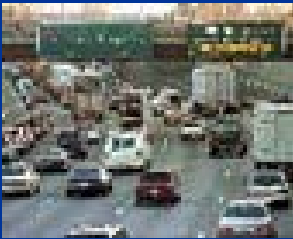
## Who may be waived?

- Regulated small MS4s serving a population of less than 1,000 within the census defined urban areas
- Regulated small MS4s serving a population of between 1,000 and 10,000 within the census defined urban areas



# Who May be Waived?

(< 1,000)



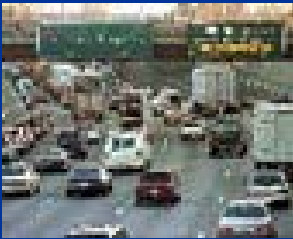
## Waiver is possible if:

- The MS4 is not contributing substantially to the pollutant loadings of a physically interconnected MS4 that is regulated under the stormwater program;

40 CFR Part 122.32(d)



# Who May be Waived? ( $< 1,000$ )



## Waiver **IS NOT** possible if:

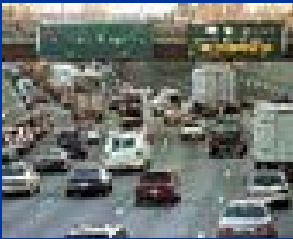
- A TMDL has been completed which establishes a waste load allocation for a pollutant or pollutants in the stormwater discharges from the MS4

See 40 CFR part 122.32(d)



# Who May be Waived?

(1,000 to 10,000)



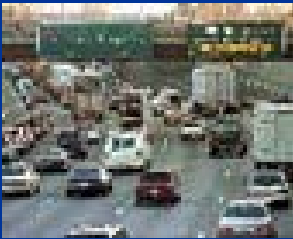
## Waiver is possible if:

- All surface waters receiving discharges from the MS4 have been evaluated; and



# Who May be Waived?

(1,000 to 10,000)



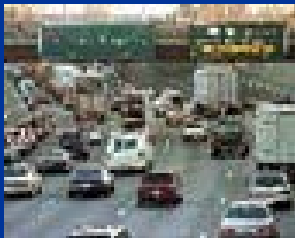
## Waiver is possible if:

- All surface waters evaluated;
- It has been determined through waste load allocations established as part of an approved TMDL that controls on the MS4 discharges are not necessary to control pollutants of concern; and



# Who May be Waived?

(1,000 to 10,000)



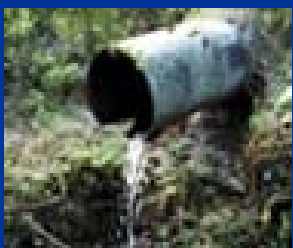
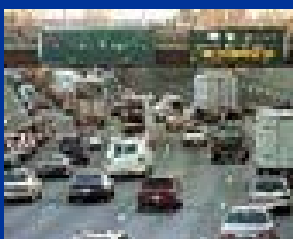
## Waiver is possible if:

- All surface waters evaluated; and
- A TMDL has been completed and controls are not necessary; and
- The permitting authority has determined that future discharges from the MS4 do not have the potential to cause water quality problems



# Who May be Waived?

(1,000 to 10,000)

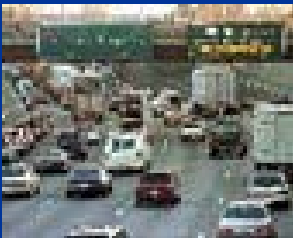


## Waiver is possible if:

- All surface waters evaluated; and
- A TMDL has been completed and controls are not necessary; and
- The permitting authority has determined that future discharges from the MS4 do not have the potential to cause water quality problems

**NOT POSSIBLE!**

# Tentative Waivers



## Cities:

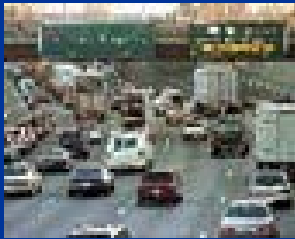
- Beaux Arts Village
- Ferndale
- Hunts Point
- Moxee
- Rock Island
- Ruston
- South Prairie
- Wilkeson
- Woodway

## Counties:

- Walla Walla

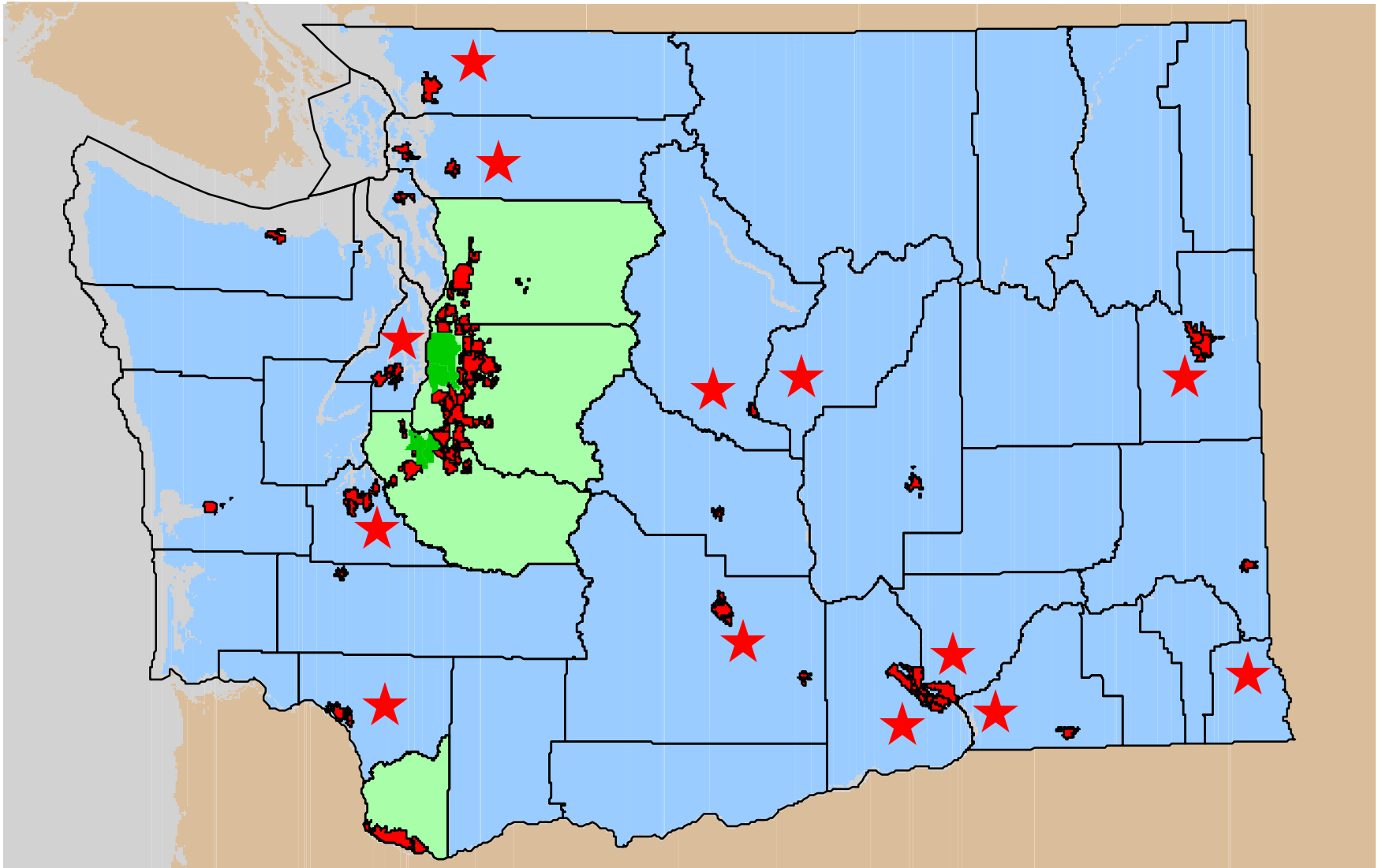


# Who's In and Who's Out



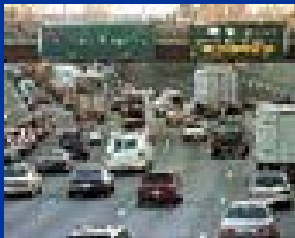
## Maps and Lists





**Phase I Coverage** - Cities & Counties over 100,000 population

**Potential Phase II Coverage** - Urban Cities & Counties,  
and Cities over 10,000 population

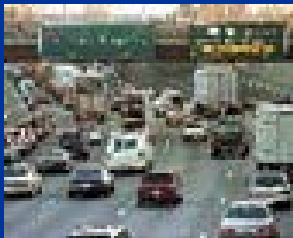


# W. WA Cities Required to Apply for Phase II Permit

- Algona
- Arlington
- Auburn
- Bainbridge Island
- Battle Ground
- Bellevue
- Bellingham
- Black Diamond
- Bonney Lake
- Bothell
- Bremerton
- Brier
- Buckley
- Burien
- Burlington
- Camas
- Clyde Hill
- Covington
- Des Moines
- DuPont
- Duvall
- Edgewood



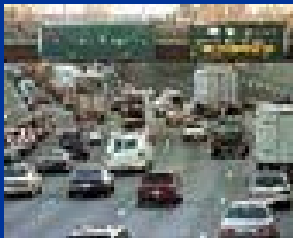
# W. WA cities req'd to apply for Phase II permit (cont'd)



- Edmonds
- Enumclaw
- Everett
- Federal Way
- Fife
- Fircrest
- Gig Harbor
- Granite Falls
- Issaquah
- Kelso
- Kenmore
- Kent
- Kirkland
- Lacey
- Lake Forest Park
- Lake Stevens
- Lakewood
- Longview
- Lynwood
- Maple Valley
- Marysville
- Medina



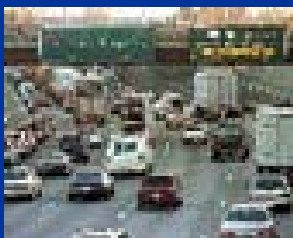
# W. WA cities req'd to apply for Phase II permit (cont'd)



- Mercer Island
- Mill Creek
- Milton
- Monroe
- Mount Vernon
- Mountlake Terrace
- Mukilteo
- Newcastle
- Normandy Park
- Olympia
- Orting
- Pacific
- Port Orchard
- Poulsbo
- Puyallup
- Redmond
- Renton
- Sammamish
- SeaTac
- Sedro-Woolley
- Shoreline
- Snohomish

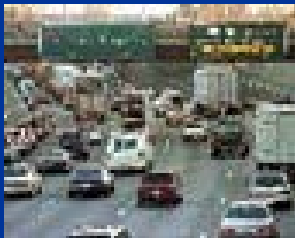


# W. WA cities req'd to apply for Phase II permit (cont'd)



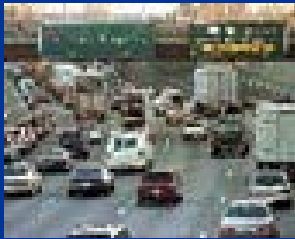
- Steilacoom
- Sumner
- Tukwila
- Tumwater
- University Place
- Vancouver
- Washougal
- Woodinville
- Yarrow Point

75 cities total



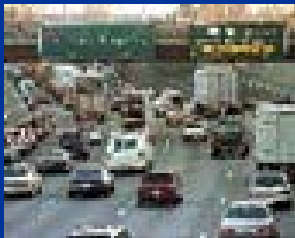
# E. WA Cities Required to Apply for Phase II Permit

- Asotin
- Clarkston
- East Wenatchee
- Liberty Lake
- Kennewick
- Millwood
- Pasco
- Richland
- Selah
- Spokane
- Spokane Valley
- Union Gap
- Wenatchee
- West Richland
- Yakima



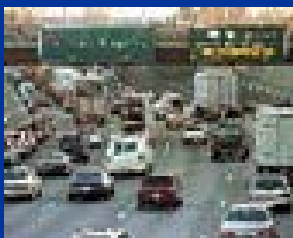
# W. WA Counties Required to Apply for Phase II Permit

- Cowlitz
- Kitsap
- Skagit
- Thurston
- Whatcom



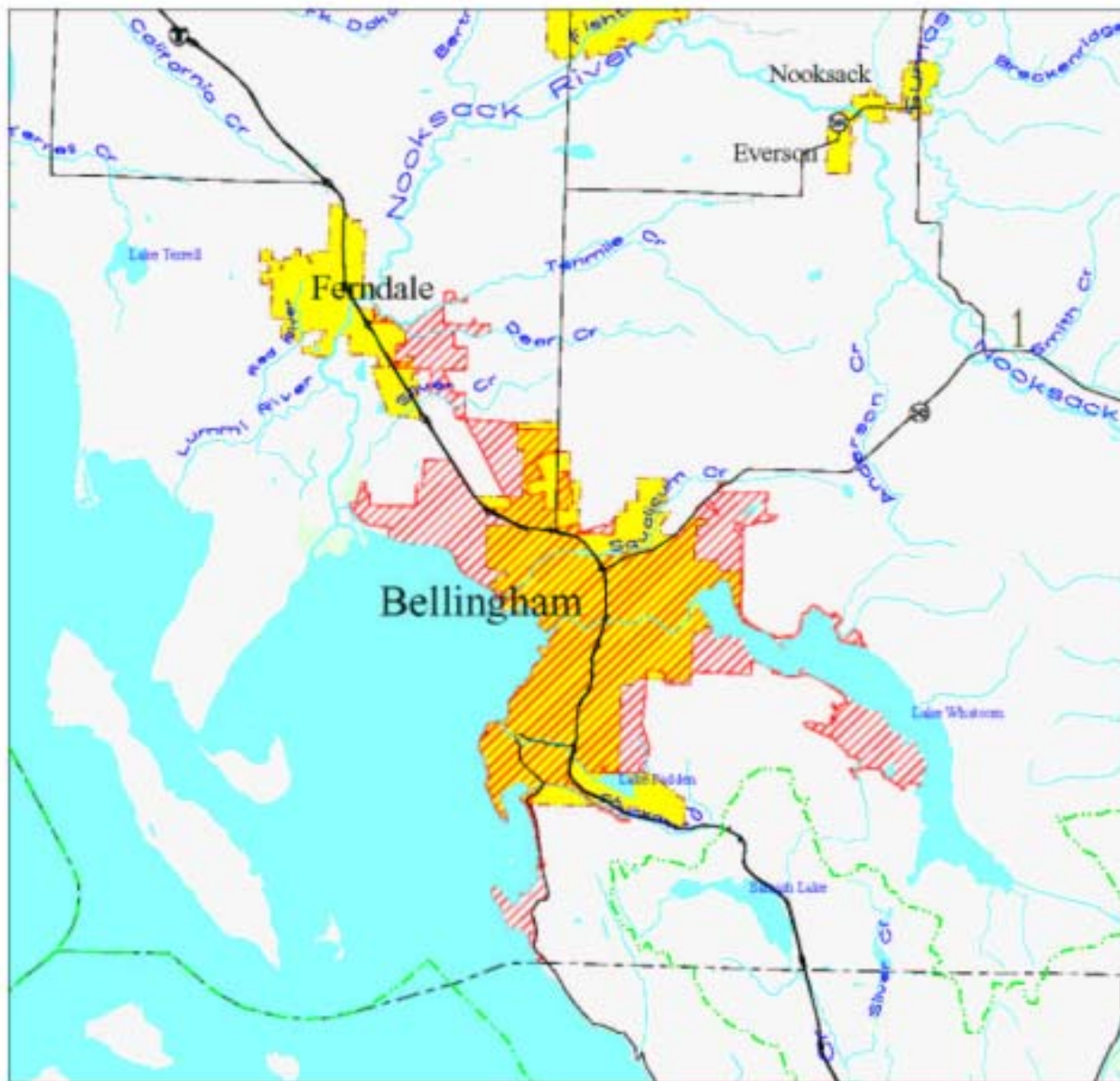
# E. WA Counties Required to Apply for Phase II Permit

- Asotin
- Benton
- Chelan
- Douglas
- Franklin
- Spokane
- Yakima



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# Washington's Census Defined Urbanized Areas



## Bellingham Urban Area

- Incorporated City (2002)
- 2000 Census Urban Area
- County
- WRIA Boundary
- Highways
- Stream/Stream

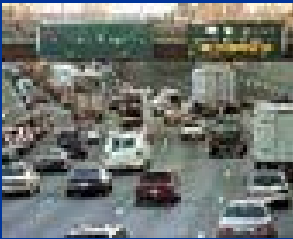
### Representational Feature Source:

Urban Areas - UNDOOCensus, 2000, 1:500,000  
 Cities - WDOT, 2002, 1:24,000  
 Counties - Ecology/WDNR, 2002, 1:24,000  
 WRIA - Ecology, 2002, 1:24,000  
 Highways - WDOT, 2001, 1:24,000

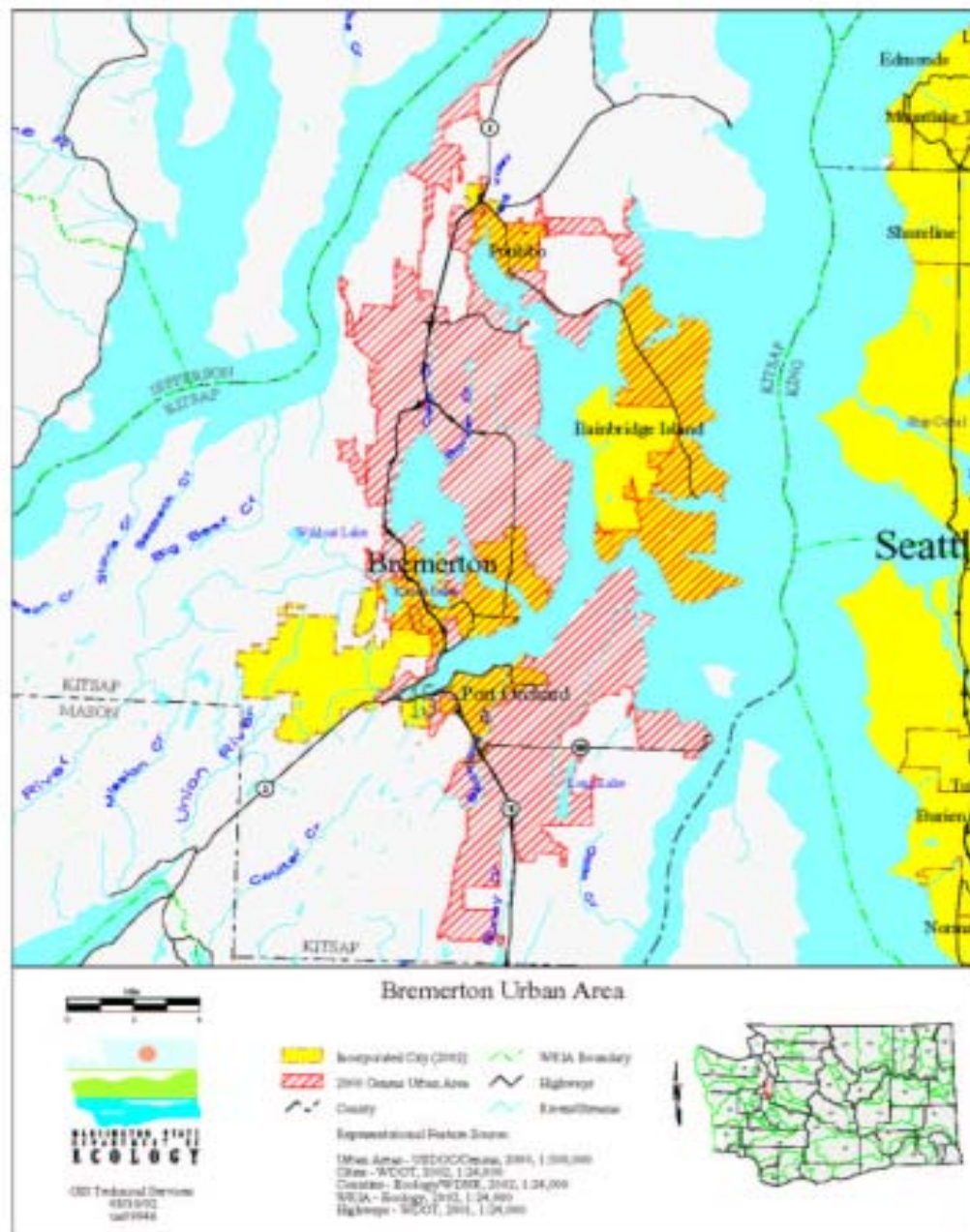


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 08/10/02  
 sa36652

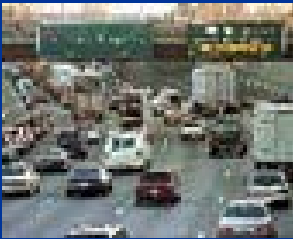
# Bellingham UA: who's in/out?



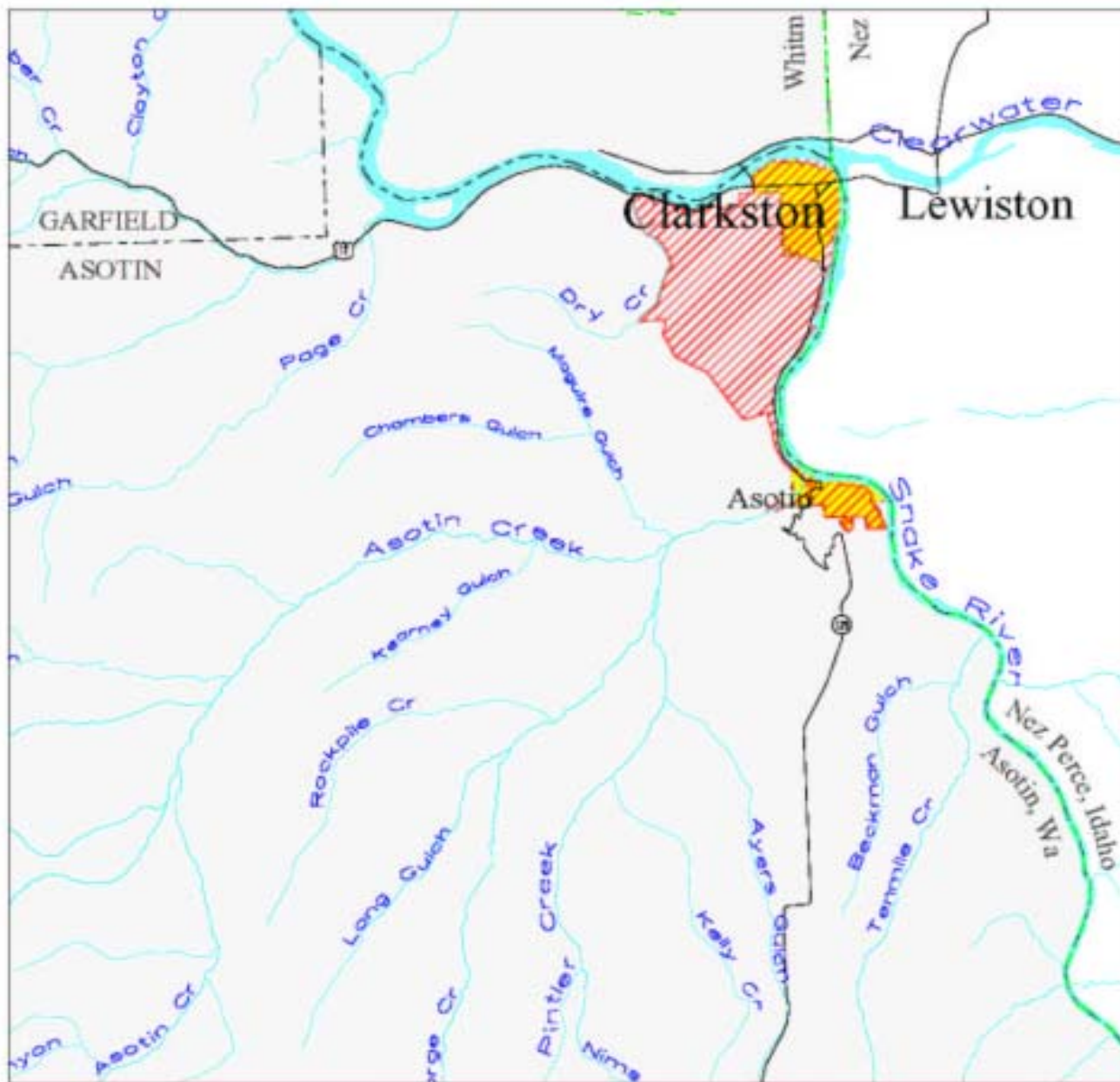
- In:
  - City of Bellingham
  - Whatcom County
- Out:
  - City of Ferndale (<1,000)
  - Cities of Nooksack and Everson (not in UA)



# Bremerton UA: who's in/out?



- In:
  - Cities of Bremerton, Bainbridge Island, Port Orchard and Poulsbo
  - Kitsap County



### Clarkston Urban Area

- Incorporated City (2002)
- 2000 Census Urban Area
- County
- WRIA Boundary
- Highways
- Stream/Drainage

#### Representational Feature Source:

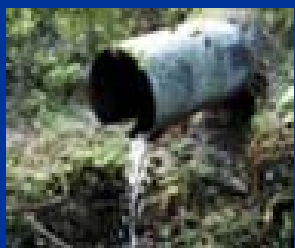
Urban Areas - UNDOOCensus, 2000, 1:500,000  
 Cities - WDOT, 2002, 1:24,000  
 Counties - Ecology/WDNR, 2002, 1:24,000  
 WRIA - Ecology, 2002, 1:24,000  
 Highways - WDOT, 2001, 1:24,000



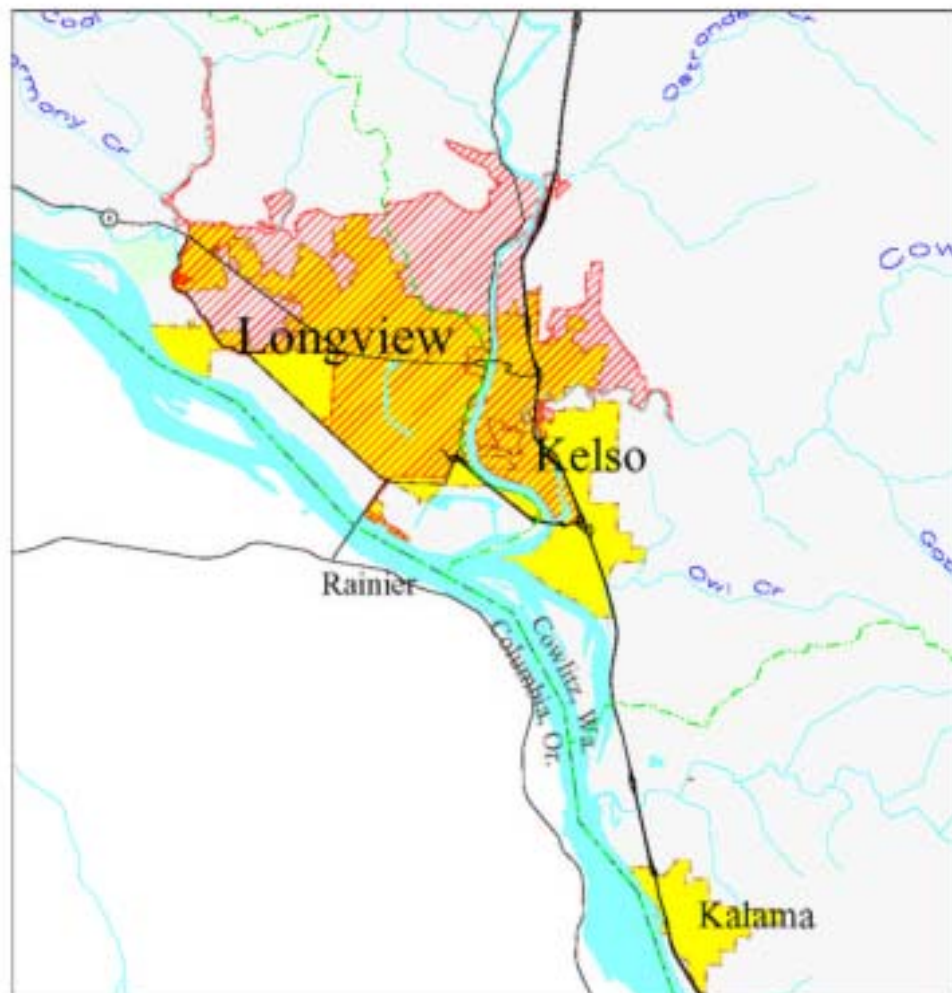
WASHINGTON STATE  
 DEPARTMENT OF  
**ECOLOGY**  
 GIS Technical Services  
 08/10/02  
 sa89312

# Clarkston UA: who's in/out?

---



- In:
  - Cities of Clarkston and Asotin
  - Asotin County
- Out:
  - City of Asotin ?? (if <1,000)



OREGON Technical Services  
1075 N. 10th  
Salem, OR 97311

# Longview/Kelso Urban Area

- Incorporated City (2002)
- 2000 Census Urban Area
- County
- WEA Boundary
- Highway
- Stream/Channel

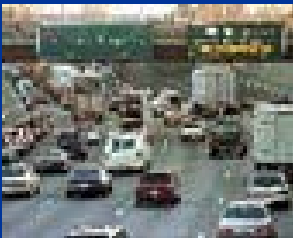
Representative Feature Source:

Urban Area - USDO/USDA, 2000, 1:250,000  
 Census - USDO/USDA, 2000, 1:250,000  
 County - USDO/USDA, 2000, 1:250,000  
 WEA - USDO/USDA, 2000, 1:250,000  
 Highway - USDO/USDA, 2000, 1:250,000



# Longview/Kelso UA: who's in/out?

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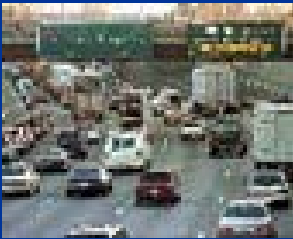


- In:
  - Cities of Longview and Kelso
  - Cowlitz County
- Out:
  - City of Kalama (not in UA)

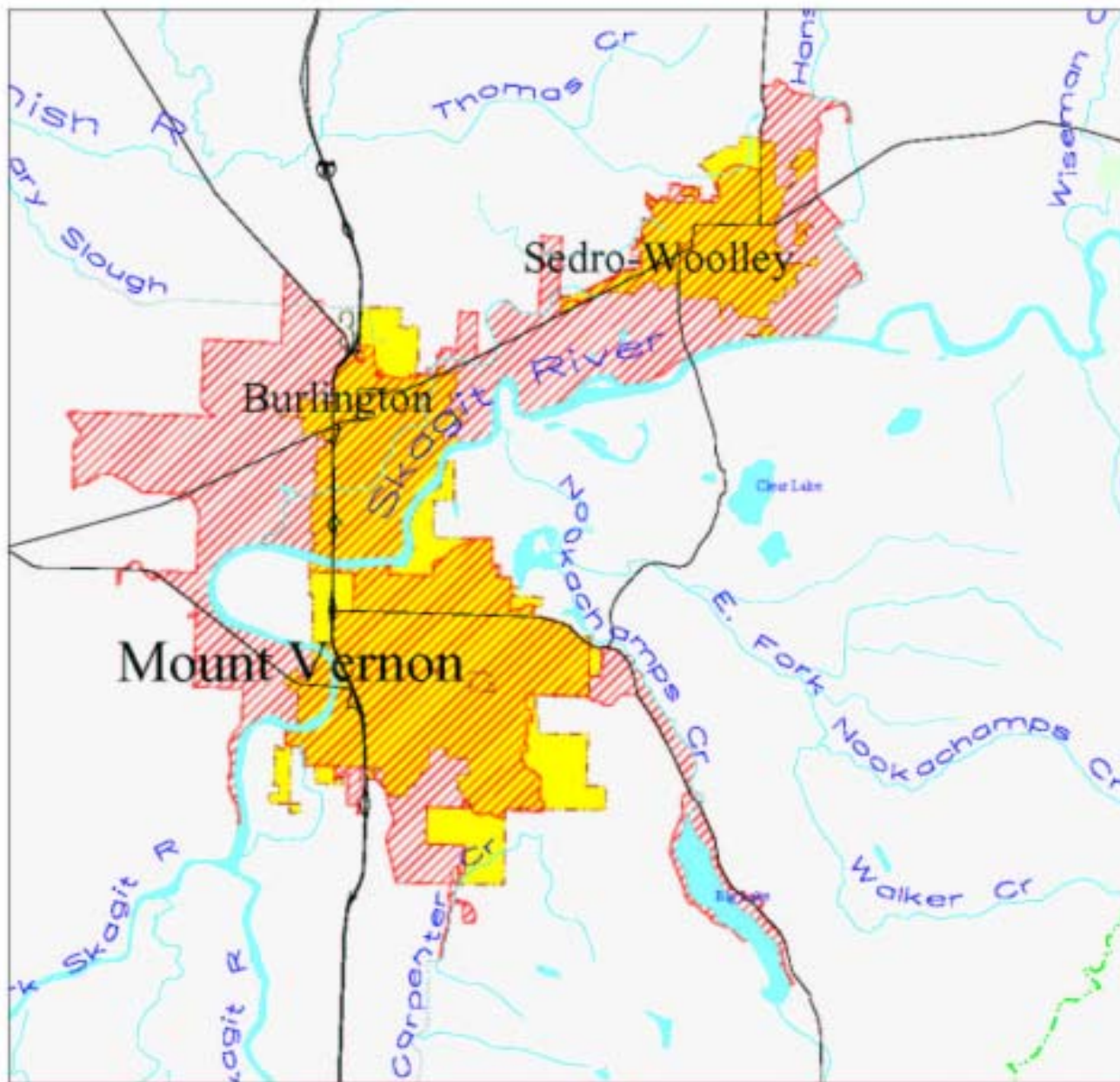


# Marysville UA: who's in/out?

---



- In:
  - Cities of Marysville, Arlington, Snohomish, Lake Stevens and Granite Falls
  - Cities of Everett and Mukilteo (in Seattle UA)



Mount Vernon Urban Area

- Incorporated City (2002)
- 2000 Census Urban Area
- County
- WRIA Boundary
- Highways
- Stream/Drainage

Representational Feature Source:

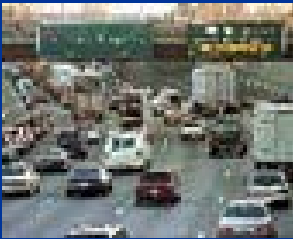
Urban Areas - UNDOOCensus, 2000, 1:500,000  
 Census - WDOT, 2002, 1:24,000  
 Counties - Ecology/WDNR, 2002, 1:24,000  
 WRIA - Ecology, 2002, 1:24,000  
 Highways - WDOT, 2001, 1:24,000



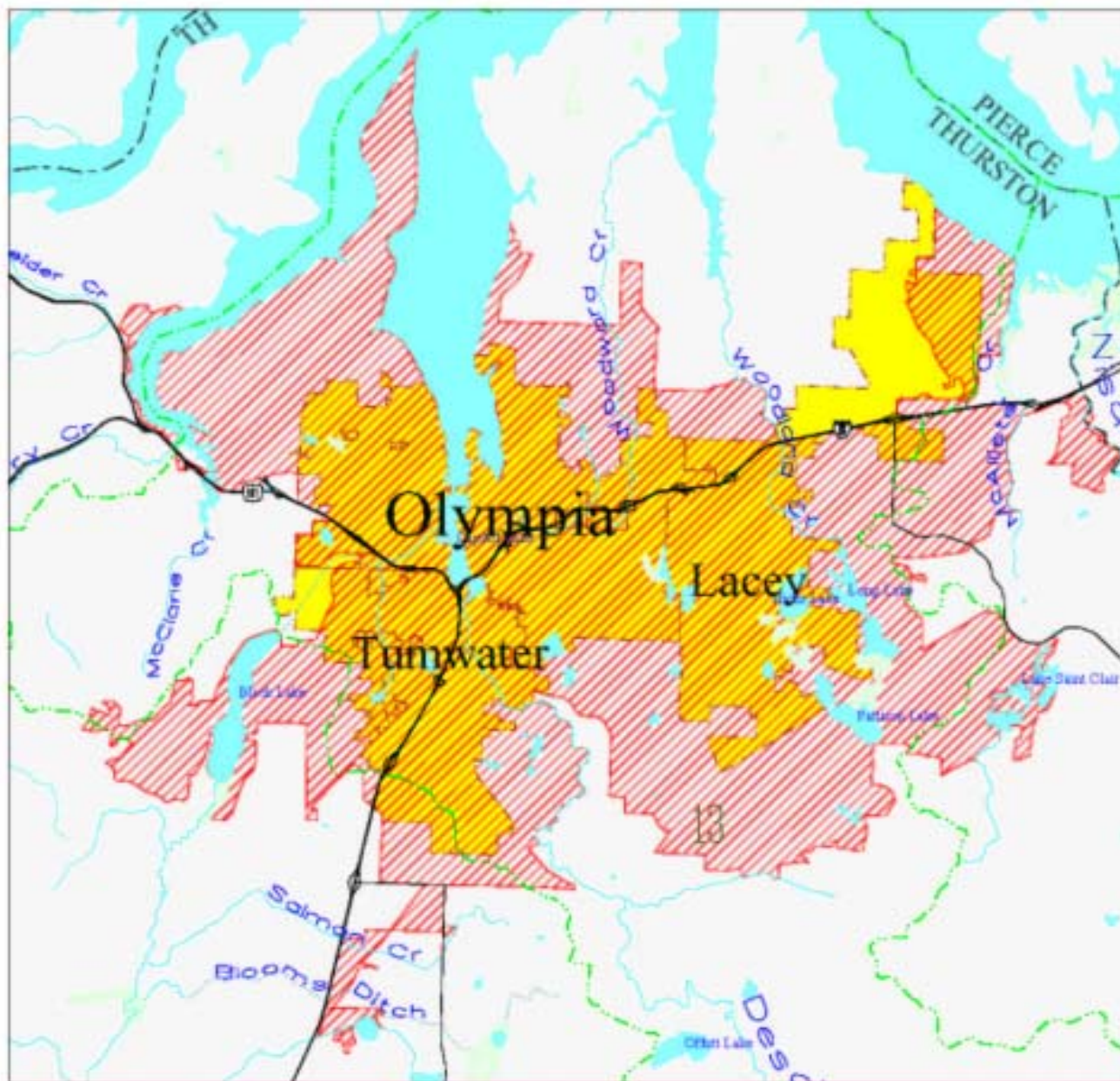
GIS Technical Services  
 08/10/02  
 sa0480

# Mount Vernon UA: who's in/out?

---



- In:
  - Cities of Mount Vernon, Burlington and Sedro-Woolley
  - Skagit County



## Olympia/Lacey Urban Area

- Incorporated City (2002)
- 2000 Census Urban Area
- County
- WLI Boundary
- Highways
- Stream/Drainage

### Representational Feature Source:

Urban Areas - UNDOOCensus, 2000, 1:500,000  
 Cities - WDOT, 2002, 1:24,000  
 Counties - Ecology/WDNR, 2002, 1:24,000  
 WLI - Ecology, 2002, 1:24,000  
 Highways - WDOT, 2001, 1:24,000

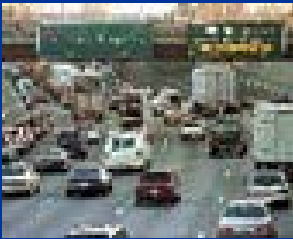


**WASHINGTON STATE  
DEPARTMENT OF  
ECOLOGY**

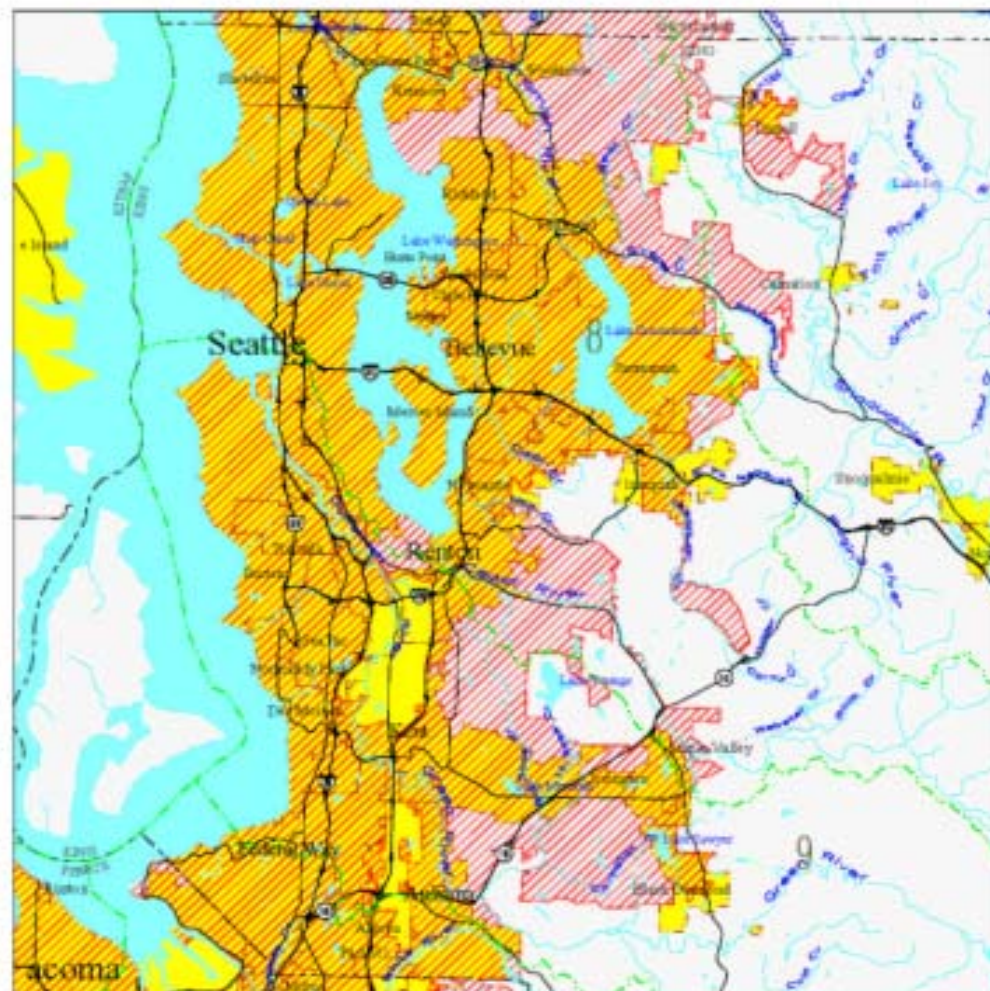
GIS Technical Services  
 08/10/02  
 ua6242

# Olympia/Lacey UA: who's in/out?

---



- In:
  - Cities of Olympia, Tumwater and Lacey
  - Thurston County



OSD Technical Services  
4071672  
04/2009a

### Seattle Urban Area Seattle Vicinity

- Incorporated City (2002)
- 2002 Census Urban Area
- County
- WRIA Boundary
- Highways
- International

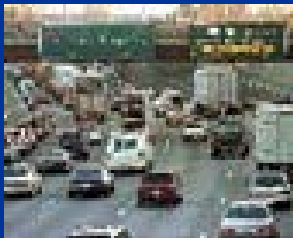
#### Representational Feature Source:

Urban Area - USDO/OSD, 2002, 1:250,000  
 Census - WDOT, 2002, 1:250,000  
 County - Ecology/OSD, 2002, 1:250,000  
 WRIA - Ecology, 2002, 1:250,000  
 Highways - WDOT, 2001, 1:250,000





# Seattle UA, Seattle vicinity: who's in/out?

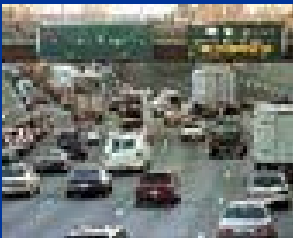


- In:
  - Cities of Bellevue, Renton, Redmond, Kirkland, Mercer Island, Duvall, Clyde Hill, Medina, Shoreline, Kenmore, Woodinville, Lake Forest Park, Bothell, Issaquah, Sammamish, Brier, Newcastle, Yarrow Point, Tukwila, Burien, SeaTac, Normandy Park, Kent, Federal Way, Auburn, Algona, Pacific, Milton, Black Diamond, Covington, and Maple Valley
- Out:
  - Cities of Beaux Arts Village and Hunts Point (<1,000)
  - Cities of Carnation, Snoqualmie and North Bend (not in UA)





# Seattle UA, Everett vicinity: who's in/out?



- In:

- Cities of Everett, Monroe, Mukilteo, Mill Creek, Lynwood, Edmonds, Mountlake Terrace, Brier, Bothell, Shoreline, Lake Forest Park, Kenmore, Woodinville and Duvall

- Cities of Snohomish, Marysville and Lake Stevens (in Marysville UA)

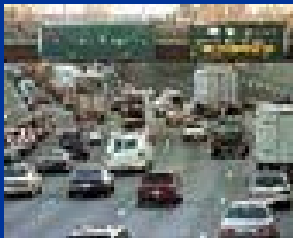
- Out:

- City of Woodway (<1,000)

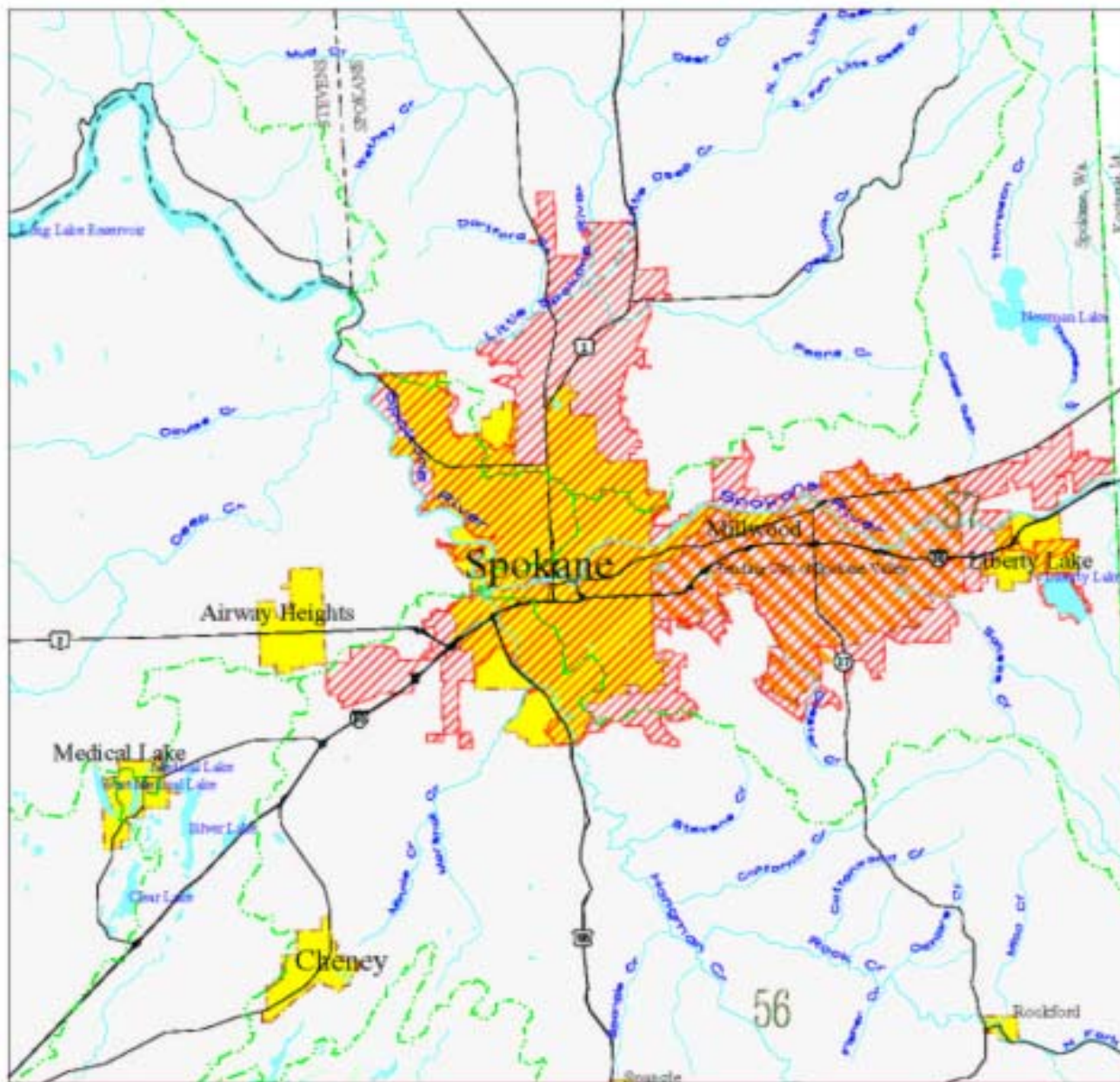




# Seattle UA, Tacoma vicinity: who's in/out?



- In:
  - Cities of Gig Harbor, DuPont, Lakewood, Steilacoom, Fircrest, University Place, Fife, Milton, Algona, Pacific, Edgewood, Puyallup, Sumner, Orting, Bonney Lake, Buckley, Enumclaw, Black Diamond, Auburn, Federal Way, Kent, SeaTac, Des Moines, Normandy Park, Burien, Covington and Maple Valley
- Out:
  - Cities of Ruston, South Prairie and Wilkeson (<1,000)
  - Cities of Carbonado, Yelm and Roy (not in UA)



## Spokane Urban Area

- Incorporated City (2002)
- 2000 Census Urban Area
- County
- WRIA Boundary
- Highways
- Stream/Drainage

### Representational Feature Source:

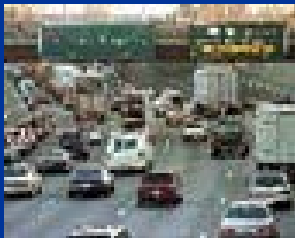
Urban Areas - UNIDOC/Census, 2000, 1:500,000  
 Census - WDOT, 2002, 1:24,000  
 Counties - Ecology/WDNR, 2002, 1:24,000  
 WRIA - Ecology, 2002, 1:24,000  
 Highways - WDOT, 2001, 1:24,000



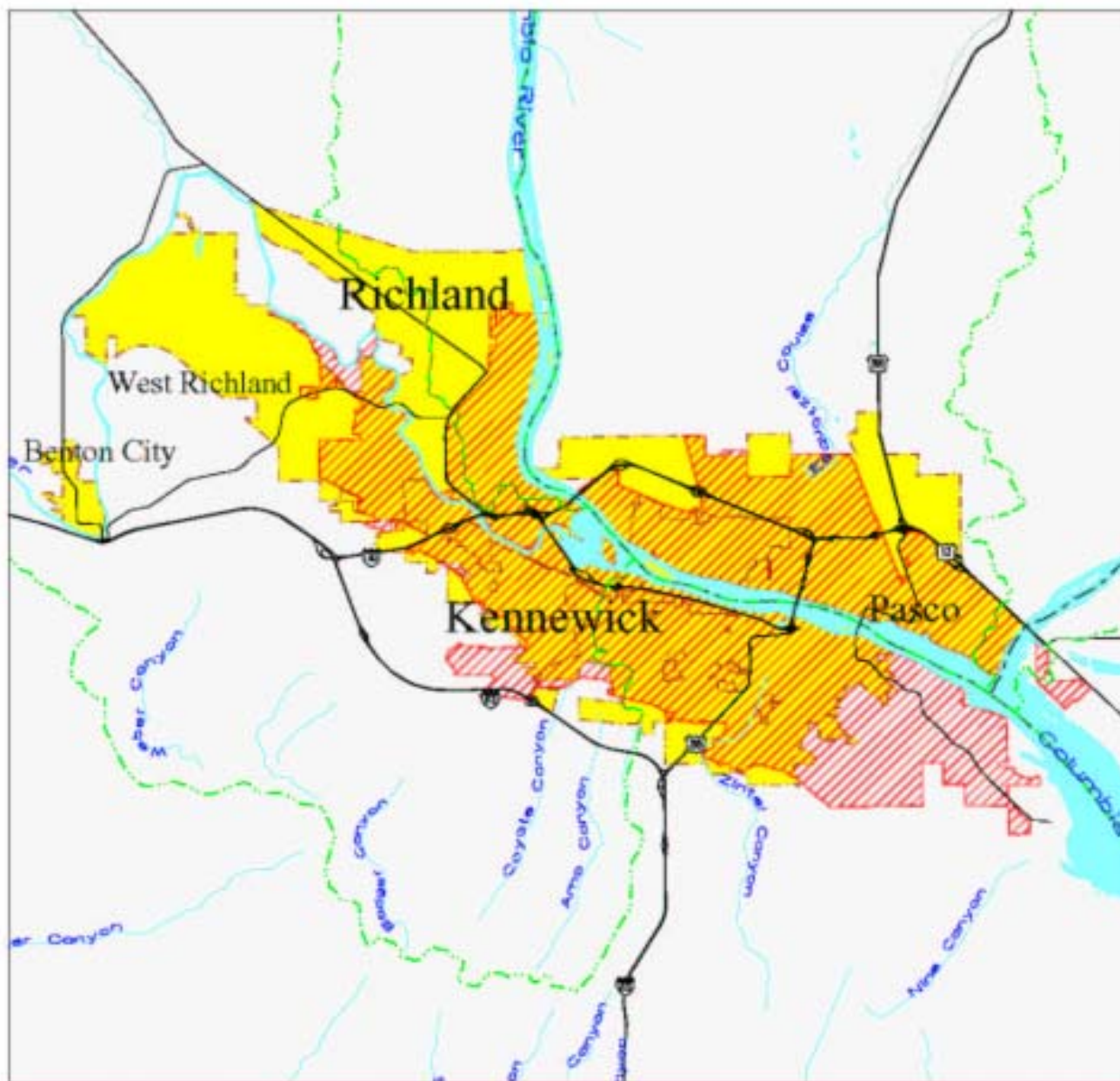
GIS Technical Services  
 08/10/02  
 ua03794



# Spokane UA: who's in/out?



- In:
  - Cities of Spokane, Millwood and Liberty Lake
  - City of Spokane Valley (pending)
  - Spokane County
- Out:
  - Cities of Airway Heights, Medical Lake, Cheney and Rockford (not in UA)



### Tri-Cities Urban Area

- Incorporated City (2002)
- 2000 Census Urban Area
- County
- WRUA Boundary
- Highways
- Stream/Drainage

#### Representational Feature Source:

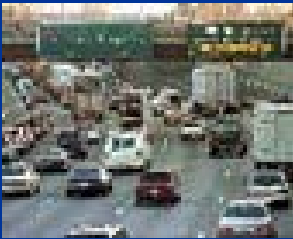
Urban Area - UNIDOC/Census, 2000, 1:500,000  
 Census - WDOT, 2002, 1:24,000  
 County - Ecology/WDNR, 2002, 1:24,000  
 WRUA - Ecology, 2002, 1:24,000  
 Highways - WDOT, 2001, 1:24,000



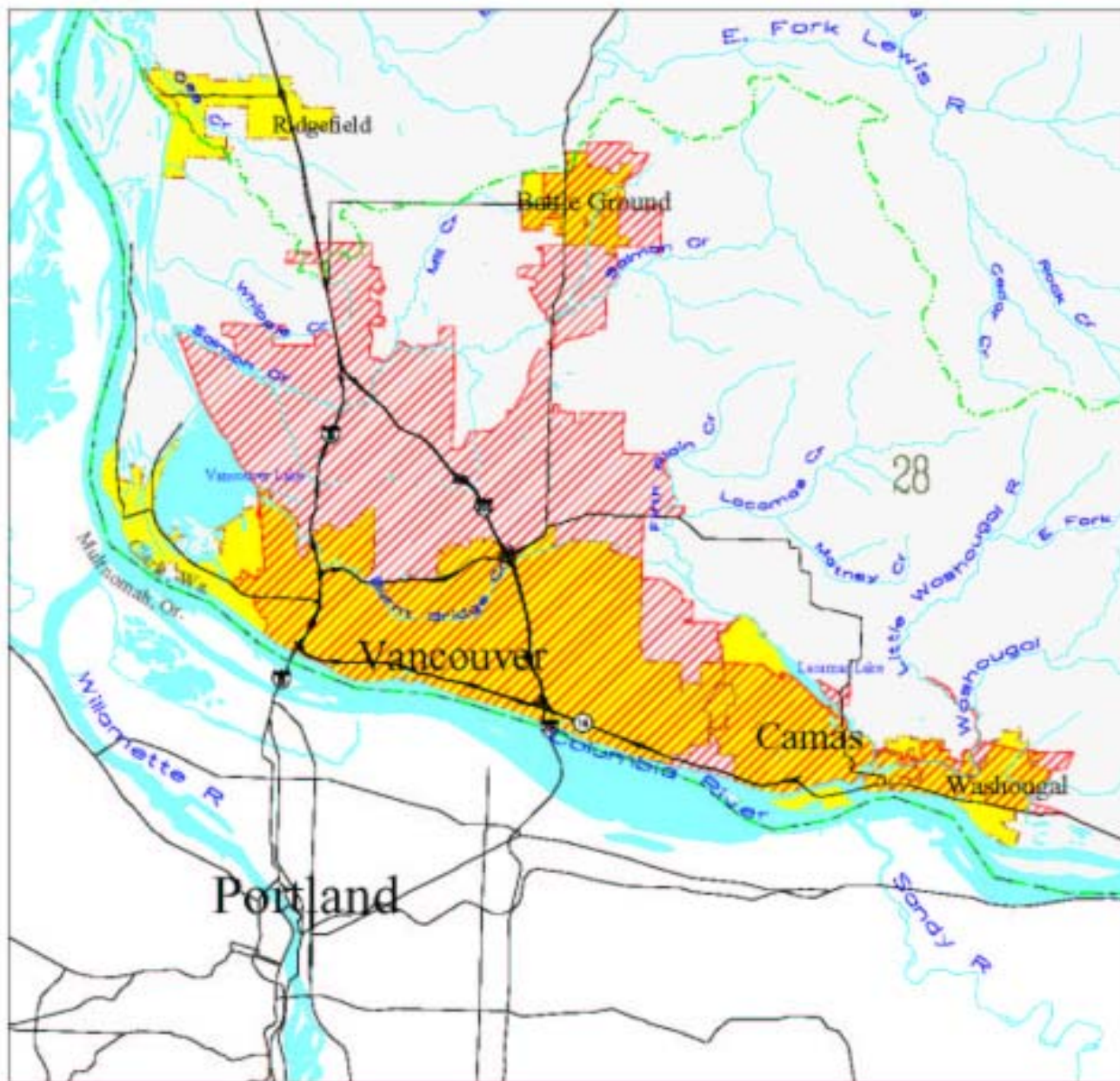
WASHINGTON STATE  
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**ECOLOGY**  
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# Tri-Cities UA: who's in/out?



- In:
  - Cities of Richland, Pasco, Kennewick and West Richland
  - Benton and Franklin Counties
- Out:
  - Walla Walla County (<1,000)
  - Benton City (not in UA)



## Vancouver Urban Area

- Incorporated City (2002)
- 2000 Census Urban Area
- County
- WRIA Boundary
- Highways
- Stream/Drainage

### Representational Feature Source:

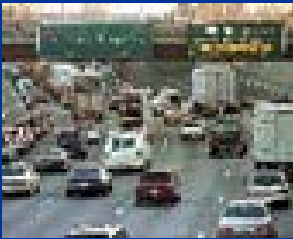
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 Cities - WDOT, 2002, 1:24,000  
 Counties - Ecology/WDNR, 2002, 1:24,000  
 WRIA - Ecology, 2002, 1:24,000  
 Highways - WDOT, 2001, 1:24,000



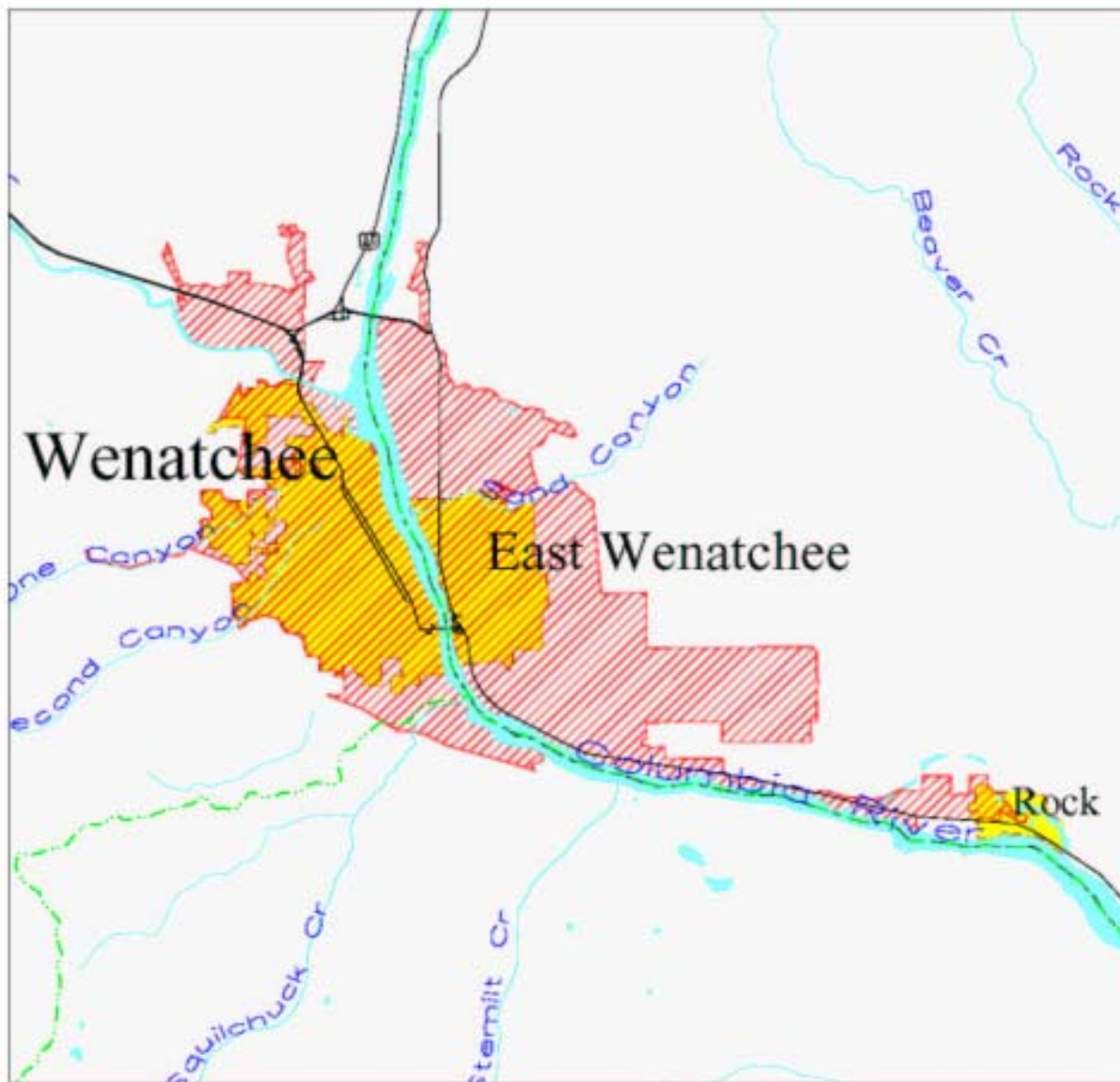
WASHINGTON STATE  
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**ECOLOGY**  
 GIS Technical Services  
 08/10/02  
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# Vancouver UA: who's in/out?

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- In:
  - Cities of Vancouver, Camas, Washougal and Battle Ground
- Out:
  - City of Ridgefield (not in UA)



## Wenatchee Urban Area

-  Incorporated City (2002)
-  2000 Census Urban Area
-  County
-  WRIA Boundary
-  Highways
-  Stream/Drainage

### Representational Feature Source:

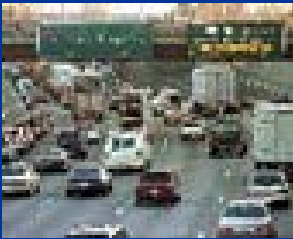
Urban Areas - UNDOOCensus, 2000, 1:500,000  
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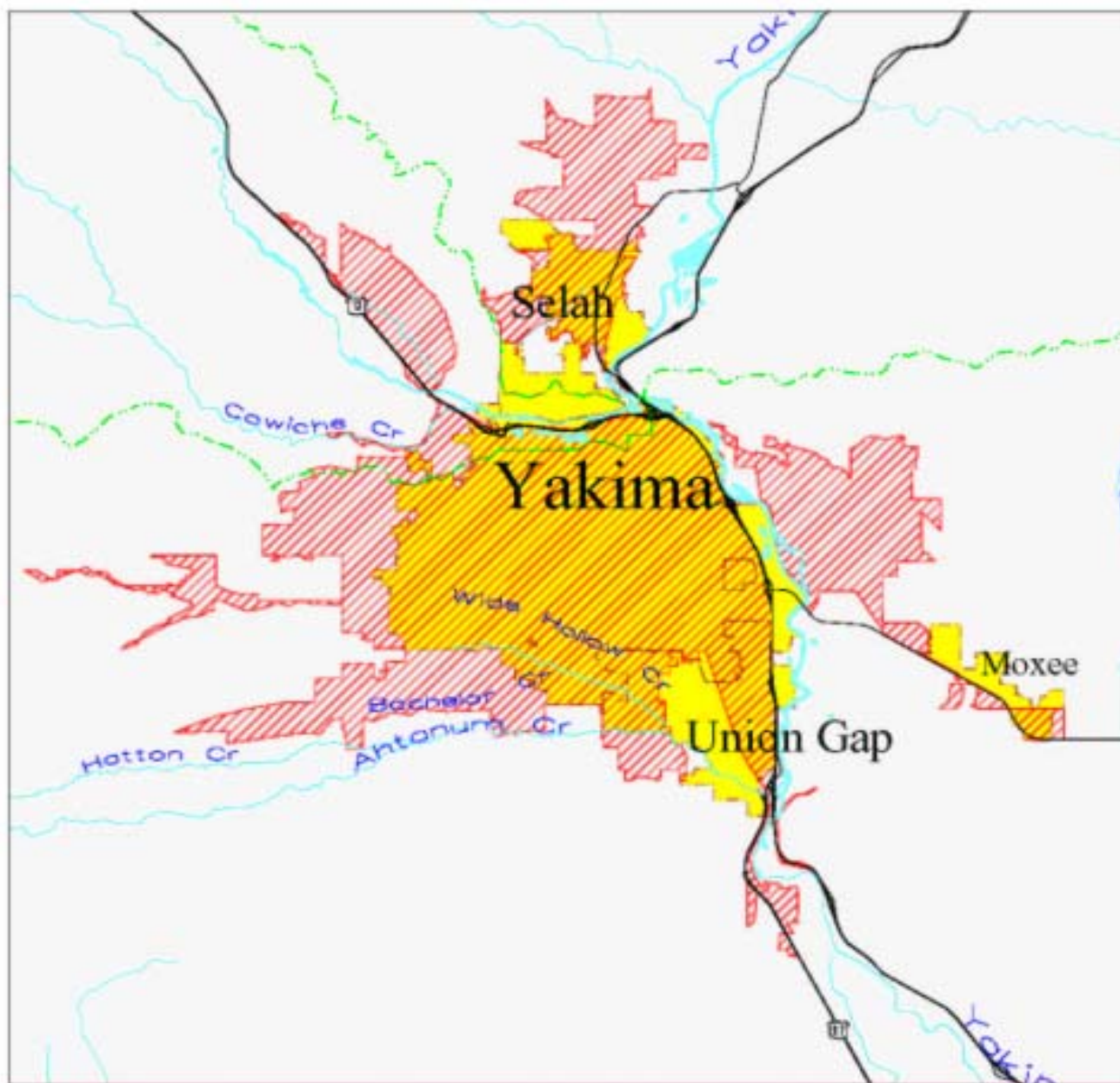
GIS Technical Services  
 08/10/02  
 sa93862

# Wenatchee UA: who's in/out?

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- In:
  - Cities of Wenatchee and East Wenatchee
  - Douglas and Chelan Counties
- Out:
  - City of Rock Island (<1,000)



## Yakima Urban Area

- Incorporated City (2002)
- 2000 Census Urban Area
- County
- WRIA Boundary
- Highways
- Stream/Drainage

### Representational Feature Source:

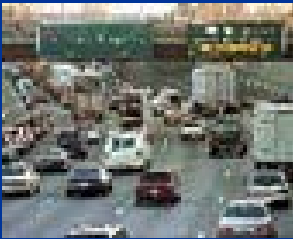
Urban Areas - UNDOOCensus, 2000, 1:500,000  
 Cities - WDOT, 2002, 1:24,000  
 Counties - Ecology/WDNR, 2002, 1:24,000  
 WRIA - Ecology, 2002, 1:24,000  
 Highways - WDOT, 2001, 1:24,000



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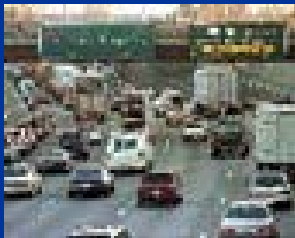
# Yakima UA: who's in/out?



- In:
  - Cities of Yakima, Selah and Union Gap
  - Yakima County
- Out:
  - City of Moxee (<1,000)



# Phase II Stormwater

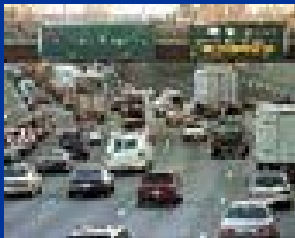


- Who is in and who is out?
- What do the Phase II rules require?
- What is next?

# What Do the Phase II Rules Require?

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- Schedules, application and permitting deadlines
- What are the Phase II permit requirements?

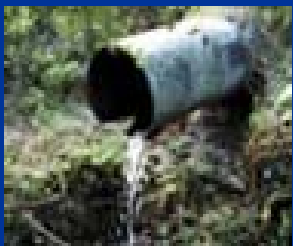
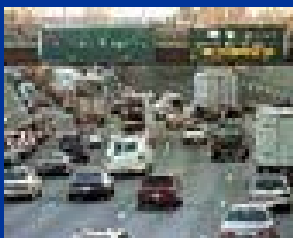


# What Do the Phase II Rules Require?

## Schedules, application and permitting deadlines

- December 8, 1999 - Phase II Rule published
- February 7, 2000 - Phase II Rule effective
- December 9, 2002 - Permits issued
- March 10, 2003 - Permit applications due
- March, 2008 - Phase II programs are to be fully implemented





# Phase II Rules

## - Permit Requirements -

Required to develop, implement and enforce a storm water management program to:

- Reduce the discharge of pollutants to the maximum extent practicable (MEP),
- Protect water quality, and
- Satisfy the appropriate water quality requirements of the Clean Water Act.

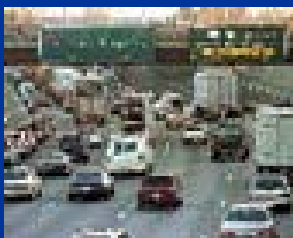


# Phase II Rules

## - Permit Requirements -

EPA's definition of MEP:



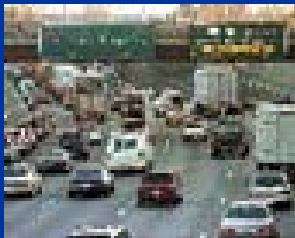


# Phase II Rules

## - Permit Requirements -

The Phase II permits must at a minimum require:

- #1-6 - The six “minimum control measures”
- #7 - Implement applicable TMDLs
- #8 - Evaluation, recordkeeping, and reporting



# Phase II Rules

## - Permit Requirements -

### 6 Minimum Control Measures

- Public education and outreach
- Public involvement/participation
- Illicit discharge detection and elimination
- Construction site runoff control

# Phase II Rules

## - Permit Requirements -

### 6 Minimum Control Measures

- Post construction stormwater management in new development and redevelopment; and
- Pollution prevention/good housekeeping for municipal operations



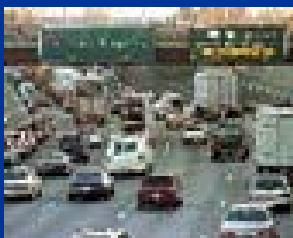


# Phase II Rules

## - Permit Requirements -

### For each Minimum Control Measure:

- Identify BMPs
- Describe measurable goals
- Describe the timing and frequency of actions
- Identify a person responsible for implementation of the BMP



# Phase II Rules

## - Permit Requirements -

### # 7 Implement Applicable TMDLs

Must comply with any more stringent requirements beyond the six minimum control measures as identified in a TMDL or TMDL-like analysis.

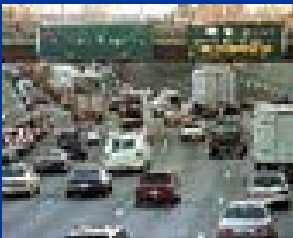
40 CFR part 122.34(e)

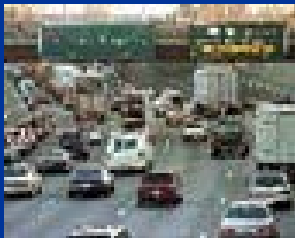
# Phase II Rules

## - Permit Requirements -

### # 8 - Evaluation, recordkeeping, and reporting

- Evaluate the effectiveness of the management practices at achieving identified measurable goals



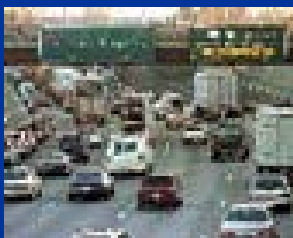


# Phase II Rules

## - Permit Requirements -

### # 8 - Evaluation, recordkeeping, and reporting

- Evaluate
- Keep records on program implementation for a minimum of 3 years and make them available to the public



# Phase II Rules

## - Permit Requirements -

### # 8 - Evaluation, recordkeeping, and reporting

- Evaluate
- Keep records
- Submit annual reports to the NPDES permitting authority (Ecology)



# Phase II Requirements

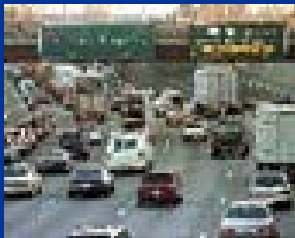


No decisions have been made about what the Phase II permits will require in Washington





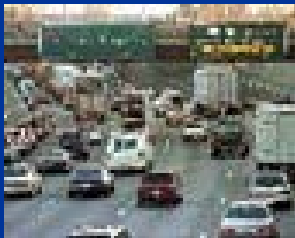
# Phase II Stormwater



- Who is in and who is out?
- What do the Phase II rules require?
- What is next?



# Phase II Stormwater



## What is next?

- For Phase II Cities & Counties: complete and submit a Phase II stormwater permit application

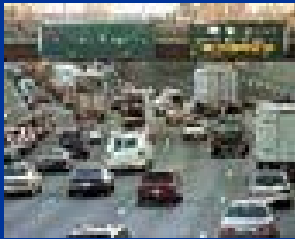


# Phase II Stormwater



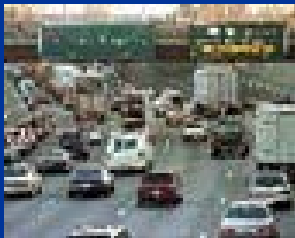
## What is next?

- Submit application
- Application is a place holder





# Phase II Stormwater

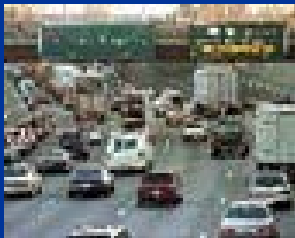


## What is next?

- Submit application
- Application is a place holder
- Begin implementation of stormwater programs as described in your application



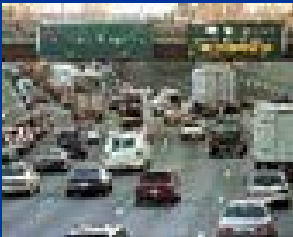
# Phase II Stormwater



## What is next?

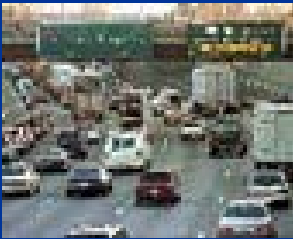
- Ecology has not started working on Phase II permits
- Earliest anticipated start date for working on Phase II permits is late 2003

# Expectations



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All local jurisdictions in the State of Washington should be properly managing their stormwater in order to protect local water quality



# What is Ecology doing to implement Phase II?

## • Tools for W. WA

- Updated the Stormwater Management Manual for Western Washington (published August 2001)

## • Tools for E. WA

- Working with stakeholders to develop guidance documents for E. WA (drafts out September 2002)
  - Model Municipal Stormwater Program
  - Stormwater Management Manual

## • Compliance pathway

- Phase II application developed with AWC/APWA
- Two Phase II general permits: E. WA and W. WA



# Ecology Contacts (Western Washington)

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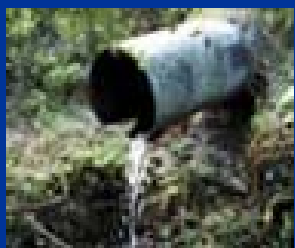
**Lauren Driscoll** (360) 407-6467

email: [ldri461@ecy.wa.gov](mailto:ldri461@ecy.wa.gov)



**Janice Sedlak** (360) 407-6470

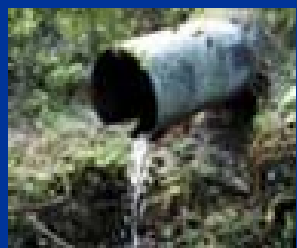
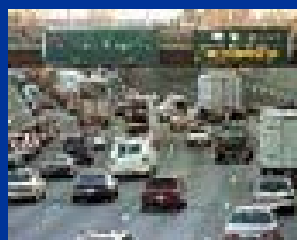
email: [jsed461@ecy.wa.gov](mailto:jsed461@ecy.wa.gov)



**Bill Moore** (360) 407-6444

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# Ecology Contacts (Eastern Washington)

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